

REMARKS

With the cancellation of claims 3 and 11 by this amendment and the cancellation of claims 2 and 10 in the amendment of March 6, 2003, claims 1, 4-9, and 12-16 remain pending in the application. In the Office Action of June 4, 2003, the Examiner rejected claims 1, 3-9 and 11-16 under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6,290,235 to Albertson in view of U.S. 2,054,863 to Oliver. With this amendment Applicant has amended claims 1 and 7 to more clearly define the present invention. To the extent that the Examiner's rejections apply to the amended claims, those rejections are respectfully traversed for the reasons set forth below.

In the Office Action, the Examiner rejected claims 1 and 7 as unpatentable over Albertson in view of Oliver. However, neither Albertson or Oliver, alone or in combination, teach or suggest all of the limitations of claim 1. Claims 1 and 7 recite, *inter alia*, a seal for a hydraulic cylinder rod that includes a main body including an inner surface, an outer surface, a first radial face having a generally planar surface extending from the inner surface to the outer surface, and a second radial face extending from the inner surface to the outer surface and having a groove disposed therein. The groove defines an inner lip adjacent the inner surface and an outer lip adjacent the outer surface. A relief feature is disposed in the outer surface of the main body and includes a channel formed in the outer surface that extends from the first radial face to a recess that has a circular shape and is disposed in the outer lip of the main body. A ridge separates the recess from the second radial face. The recess of the relief feature is adapted to receive a pressurized fluid through the channel and the outer lip of the main body is adapted to flex to allow the pressurized fluid to flow from the first radial face to

the second radial face when the pressure of the fluid at the first radial face is greater than the pressure of a fluid at the second radial face.

As the Examiner notes in the Office Action, Albertson does not teach or suggest a seal having a pressure relief device that includes a channel and recess as defined in claims 1 and 7. Oliver does not compensate for the deficiencies in the disclosure of Albertson. Oliver describes a compressor for a fluid pressure system. The described compressor includes a piston 20 that is mounted for reciprocal motion in a cylinder. A collapsible leak-proof cup 36 is attached to an end of the piston 20. The wall of the collapsible leak-proof cup 36 includes a plurality of spaced longitudinal grooves 46 that communicate with a centrally disposed circumferential groove 48.

The collapsible leak-proof cup 36 is adapted to form a seal with the walls of the cylinder when the piston 20 is moving through a compression stroke and to collapse when the piston 20 is moving through a return stroke. The collapsing of the leak-proof cup 36 allows fluid to flow from a fluid reservoir to a chamber where the fluid may be compressed by the piston. Thus, the shape and size of spaced longitudinal grooves 46 and the centrally disposed circumferential groove 48 are adapted to ensure that the leak-proof cup 36 collapses on each return stroke of the piston 20 to thereby allow a free flow of fluid so that the compressor may operate as expected.

Oliver does not teach or suggest a seal having a relief feature as recited in claims 1 and 7 of the present application. The leak-proof cup 36 described in Oliver includes a set of grooves 46 and 48 that are adapted to cause the leak-proof cup 36 to collapse on each return stroke of the piston 20. In contrast, the circular shape of the recess in the relief feature of the present application is adapted to cause the outer lip to

flex and allow a flow of fluid only when a build-up of fluid pressure adjacent the first radial face becomes greater than the pressure of the fluid adjacent the second radial face.

Oliver teaches away from modifying the grooves 46 and 48 of the collapsible leak-proof cup 36 to obtain the relief feature of the present invention. In the compression system described in Oliver, failure of the leak-proof cup 36 to collapse ~~would result in improper operation of the compression system.~~ Thus, one skilled in the art would not look to the teachings of Oliver to solve the problem resolved by the present application.

For at least these reasons, the 35 U.S.C. §103(a) rejection of claims 1 and 7 should be withdrawn. Accordingly, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of claims 1, 4-9, and 12-16.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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